

Notice of Allowability

Application No.

10/560,444

Examiner

Haissa Philogene

Applicant(s)

FURUKAWA, NORIMASA

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 7/11/07.
2. ☒ The allowed claim(s) is/are 1, 4, 6, 8, 10 now renumbered 1-5.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Haissa Philogene

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David R. Metzger on September 28, 2007.

The application has been amended as follows:

Claim 9 has been cancelled.

In claim 1, lines 9 and 17, claim 4, lines 8 and 17 and claim 6, lines 10 and 19, the word "resister" has been changed —resistor--.

In claim 1, line 2, after "devices", —being light emitting diodes—has been added.

In claim 4, line 11, after "circuit", "for" has been deleted.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose the recited limitations:

"a bypass circuit including (a) a plurality of thyristors, each of which is connected in parallel with a respective one of said series connected light emitting diodes, and (b) a gate potential setting circuit; a switching device for pulse width modulation; and a resistor connected in parallel with said switching device for pulse width modulation, wherein, said gate potential setting circuit provides to said thyristors a gate potential value such that, when said series connected devices are operating as normally, said thyristors are in the off state, said gate potential setting circuit provides to said thyristors another gate potential value_such that, when said series connected_devices

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are in the open state, said thyristors are on, and said resistor is coupled to said pulse width modulating constant current driving circuit such that current for maintaining the on state of a turned-on thyristor flows through said resistor" (claims 1, 4 and 6); or "a bypass circuit or gate potential setting circuit having a plurality of thyristors; a plurality of voltage dividers each of which is coupled in parallel with a respective one of said thyristors; voltage dividers comprising operatively coupled resistors; and a plurality of series connected light emitting diodes, wherein, each voltage divider is connected to the gate terminal of its respective thyristor and supplies a gate potential value to the thyristor such that the thyristor is turned off during normal operation of said series-connected light emitting diodes and turned on when said series-connected light emitting diodes are open-circuited" (claims 8 and 10). Hence, the examiner has allowed claims 1, 4, 6, 8 and 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 8:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571)272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

hp

Haissa Phileas
Primary Examiner
A.U. 2821
